

Site: Syntex-Verona  
 ID #: MO007452164  
 Break: 17.8  
 Other: Spring River  
Legal 0751

TES

*Enforcement  
 Sensitive  
 3/29/83*

UNITED STATES  
 ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF  
 SYNTEX AGRIBUSINESS, INC.,

Proceeding under Section 106(a)  
 of the Comprehensive Environmental  
 Response, Compensation, and  
 Liability Act of 1980 (CERCLA),  
 42 U.S.C. 9606

Docket No. \_\_\_\_\_

FINDINGS OF FACTS, DETERMINATION, AND ORDER

This Order is issued to Syntex Agribusiness, Inc., Verona, Missouri (hereinafter referred to as Respondent or Syntex) pursuant to the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9606(a), and delegated to the Environmental Protection Agency (EPA) by Executive Order 12316 dated August 20, 1981, and further delegated to the undersigned by EPA Delegation No. 14-14, dated August 25, 1982. Notice of the issuance of this Order has been given to the State of Missouri.

EPA has determined that there may be an imminent and substantial endangerment to the public health or welfare or the environment due to an actual or a threatened release of hazardous substance(s) as defined in Section 101(14) of CERCLA, 42 U.S.C. 9601 (14), from the following described facility.



40039006  
 SUPERFUND RECORDS

FINDINGS OF FACT

1. Syntex Agribusiness, Inc., is a Delaware corporation authorized to do business in the State of Missouri.
2. Syntex is the present owner and operator of the facility herein described, and was, at the times of storage, treatment, and/or disposal of the hazardous substances referred to herein the owner and/or operator of said facility, operating at various times under the names Hoffman-Taff, Inc., and Syntex Agribusiness, Inc.
3. The facility is commonly referred to as the Syntex Agribusiness, Inc., Verona Plant, and is located on First Street, Verona, Lawrence County, Missouri, specifically described as: SE 1/4, NE 1/4, Section 17, Township 26N, Range 26 West, Latitude 37° 48 mins. 00 secs., Longitude 93° 57 mins., 40 secs.
4. From May, 1968 to February, 1969, Hoffman-Taff, Inc., produced "agent orange" at the facility. As an intermediate step in the production process, 1,2,4,5-tetrachlorobenzene (TCB) was converted to 2,4,5-trichlorophenol (TCP), a hazardous substance as defined by §101(14) of CERCLA, 42 USC 9601(14).
5. From November 18, 1969, to January, 1972, North Eastern Pharmaceutical and Chemical Company (NEPACCO) produced hexachlorophene in space leased at the facility. As an intermediate step in the production process, TCB was converted to TCP.

6. Both of the production processes described in paragraphs 4 and 5 above resulted in the generation of wastes containing tetrachlorodibenzo-p-dioxins (TCDD), a hazardous substance as defined by §101(14) of CERCLA, 42 U.S.C. 9601(14).

7. The following disposal areas have been identified at the facility as they are commonly known: Syntex trenches, Hoffman-Taff lagoons, burn area, slough area, NEPACCO irrigation area and spill area. (See Attachment 1.)

8. The Syntex trenches are located approximately 500 feet upgradient from the Spring River in the northwest corner of the facility. A series of five (5) unlined trenches was used to dispose of waste materials from the facility's production processes described above.

9. The trench area is characterized by permeable residuum and solutionly weathered bedrock which lends itself to <sup>movement</sup> ~~mobilization~~ of hazardous substances coming in contact with water percolating through the soil and bedrock.

10. The following hazardous substance as defined by §101(14) of CERCLA, 42 U.S.C. 9601(14) has been found at the following concentrations (expressed in parts per billion (ppb)) at the Syntex trenches (See Attachment 2.):

Total TCDD	0.033 to 69 ppb (range)
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11. The Hoffman-Taff lagoons are located in the floodplain of the Spring River approximately 500 feet from that same River. (See Attachment 1.) These four (4) separate unlined non-discharging lagoons received wastewater from various production processes at the facility.

12. The following hazardous substances as defined by §104(14) of CERCLA, 42 U.S.C. 9601(14), have been found at the following concentrations at the Hoffman-Taff lagoons (See Attachment 3.):

Total TCDD	0.41 ppb to 340 ppb (range)
2,4,5-TCP	1400 ppb

13. The slough area is an abandoned meander of the Spring River part of which is immediately adjacent to the east side of the lagoons described in paragraph 11. (See Attachment 1.) This area is in the floodplain of the Spring River.

14. The following hazardous substance as defined by §104(14) of CERCLA, 42 U.S.C. 9601(14), has been found at the following concentrations in the slough area at the facility:

Total TCDD	0.29 to 2.3 ppb (range)
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15. The burn area is located on the south end of the facility in the floodplain of the Spring River, approximately 160 feet from that same river. (See Attachment 1.) The area was used to burn various wastes resulting from the activities of the facility.

16. The following hazardous substance as defined by §104(14) of CERCLA, 42 U.S.C. 9601(14), has been found at the following concentrations at the burn area (See Attachment 4.):

Total TCDD	0.19 ppb to 24 ppb (range)
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17. The NEPACCO irrigation area is located next to Building V-11 at the facility, in the floodplain of the Spring River, approximately 370 feet from that same river. (See Attachment 1.)

18. The following hazardous substances as defined by §104(14) of CERCLA, 42 U.S.C. 9601(14), has been found at the following concentrations at the NEPACCO irrigation area (See Attachment 5.):

Total TCDD	0.14 ppb to 29 ppb (range)
2,4,5-TCP	200 ppb

19. The spill area is located near a steel tank designated T-24 at the facility approximately 520 feet from the Spring River in the floodplain of that same River. (See Attachment 1). The area resulted from a spill of contaminated waste water.

20. The following hazardous substance as defined by §104(14) of CERCLA, 42 U.S.C. 9601(14), has been found at the following concentrations (expressed in parts per trillion) at the spill area:

TCDD	13 ppt
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21. TCDD is carcinogenic (a suspected or proven cancer causing agent in humans and/or animals), tetratogenic (causes abnormal development of the fetus, including deficient, redudant, misplaced or grossly misshapen body parts), mutagenic (causes changes in genes or an organism that are perpetuated in subsequent cell divisions or offspring of the organism), and feto-toxic (causes death or other adverse health effects in fetuses) in very minute

26. Analysis of sediment samples taken by EPA from various locations in the Spring River downstream from the facility show concentrations of 2,3,7,8-TCDD to 12 ppt. (See Attachment 2.)

27. Analysis of these fish samples taken from various locations in the Spring River both above and below the Syntex facility show an average high concentration of 2,3,7,8-TCDD at 40 ppt in fish filets. (See Attachment 6.)

28. With knowledge of the data in paragraph 25, the Missouri Division of Health issued a public health advisory in March, 1982, advising the residents of southwest Missouri to limit their consumption of fish from the Spring River. This advisory remains in effect and follows the August 26, 1981, Food and Drug Administration's health advisory concerning 2,3,7,8-TCDD contaminated fish in Michigan (See Attachment 7.)

#### DETERMINATION

29. Based on the above and foregoing facts, the undersigned has determined that the actual or threatened release of hazardous substances from this facility may be an imminent and substantial endangerment to the public health or welfare or the environment, and the following immediate action is necessary to protect the public health, welfare or the environment.

#### ORDER

30. It is hereby ordered and directed that the Respondent undertake the activities described below pursuant to the schedules established below to further define, contain, mitigate, and/or terminate the actual or threatened release of hazardous substances from the facility:

Syntex Facility

31. Within ten (10) days from the effective date of this order, Respondent shall post warning signs at all areas where TCDD is known to exist at the facility. These areas shall include, at a minimum, the five areas described in the Findings of Fact above. The warning signs shall be printed with the legend "Danger - Keep Out" or other legend as may be approved by EPA. The signs shall be weather resistant, readable at night, and posted in a manner that clearly identifies the contaminated areas.

32. Within thirty (30) days of the effective date of this order, Respondent shall develop and submit to EPA for approval a plan for fully defining the extent and nature of hazardous substance contamination at the facility. At a minimum the plan shall address total TCDD and TCP contamination. The plan shall provide for sampling and analysis of soil, air, and groundwater at known or suspected areas of hazardous substance contamination as well as background level areas at the facility. The plan shall further provide for surveying to locate contaminated areas and background sampling locations relative to a standard datum. The plan shall provide a schedule for implementation of the scope of work described therein and periodic and final reporting to EPA.

33. Within ninety (90) days of the effective date of this order, Respondent shall prepare and submit to EPA a remedial alternatives report which identifies and evaluates alternatives to remedy the hazardous substance contamination at the facility consistent with Section 300.68 of the National Contingency Plan (Federal Register, July 16, 1982). This report shall recommend remedial action(s) for all contamination at the facility.

34. Within forty-five (45) days of approval by EPA of remedial action(s), Respondent shall prepare and submit to EPA for approval detailed plans and specifications for implementation of the action(s). The plans and specifications shall include but not be limited to a schedule of implementation, periodic and final reporting to EPA, content of said reports, safety plans, and sampling plans to verify completeness of the remedy.

35. Upon approval by EPA, Respondent shall implement said plans and specifications according to the schedule set forth therein.

Spring River Basin

36. Within thirty (30) days of the effective date of this order, Respondent shall develop and submit to EPA for approval a plan for fully defining the extent and nature of contamination from hazardous substance released from the facility into the Spring River and adjoining floodplain. At a minimum the plan shall address total TCDD and TCP contamination. The plan shall provide for sampling and analysis of potentially contaminated Spring River sediments, soil in the Spring River floodplain and fish and other aquatic life, including mussels, benthic organisms, and cray fish in the Spring River at known or potentially contaminated areas of the river or floodplain. The plan shall further include sampling of Spring River aquatic organisms until a definitive downward trend in contamination is established over a minimum five (5) year period.

37. Within one hundred eighty (180) days of the effective date of this order, Respondent shall prepare and submit to EPA a remedial alternatives report which identifies and evaluates alternatives to remedy contamination resulting

from hazardous substances released from the facility consistent with Section 300.68 of the National Contingency Plan. The report shall recommend remedial action(s) for all such contamination.

38. Within sixty (60) days of approval by EPA of remedial action(s), Respondent shall prepare and submit to EPA detailed plans and specifications for implementation of the action(s). The plans and specifications shall include but not be limited to a schedule of implementation, periodic and final reporting to EPA, content of said reports, safety plans, and sampling plans to verify completeness of the remedy.

39. Upon approval by EPA, Respondent shall implement said plans and specifications according to the schedule set forth herein.

Effective Date

40. This order shall be effective immediately upon receipt by Respondent of a fully executed copy thereof.

Opportunity to Confer

41. The Respondent may request a conference with the Regional Administrator of Region VII to discuss the order, its applicability to Respondent, the correctness of any factual determination upon which the order is based, the appropriateness of any action Respondent is ordered to take, and any other relevant and material issue. Such request must be made within 48 hours of

receipt of this order by the Respondent with respect to those activities required by paragraph 3 of the order and within 14 days of receipt of this order by the Respondent with respect to those activities required by paragraphs 32-39 of the order. Any oral request for a conference must be confirmed in writing and received by EPA Region VII within five (5) working days from the date of oral request. The request for conference does not automatically stay the effective date of the order. The Regional Administrator may stay an order, in whole or in part, when appropriate. The Regional Administrator may designate a representative to confer with the Respondent. Respondent should contact Jane B. Werholtz, Office of Regional Counsel, 324 East 11th Street, Kansas City, Missouri 64106, (816) 374-3171 to request a conference.

#### Other Action

42. Nothing contained in this order shall be construed to prevent EPA from seeking legal or equitable relief to enforce the terms of this order or from taking other action it deems appropriate or necessary to protect the public health or welfare or the environment. Respondent may be liable under Section 107(a) of CERCLA for the costs of any activities so undertaken by the United States Government.

#### ACCESS

43. It is the responsibility of Respondent to obtain access to and use of all areas addressed by the order. Respondent assumes full responsibility for any claims arising from the activities conducted by Respondent or its representatives on property owned by others in connection with this order.

44. Respondent shall provide access to the facility and Spring River Basin for EPA employees, contractors or consultants of EPA at all reasonable times and shall permit such persons to be present and move freely in the area where any work is being conducted pursuant to this order. Furthermore, Respondent shall provide EPA with copies of all charts, maps, letters, memoranda, invoices, shipping manifests or other records or documents considered by EPA to be germane to the subject matter of this order. Any information requested pursuant to this order must be provided notwithstanding its possible characterization as confidential business information. Respondent may request at the time of submitting information that such information be treated as confidential business information, and if such a request is made, EPA shall process such request in accordance with the provisions of 40 C.F.R. Part 2.

#### Sample Splitting

45. Upon request, Respondent shall make available to EPA a split of all samples taken pursuant to this order.

#### Exchange of Information

46. All plans, specifications, and reports required under this order shall, upon completion, be delivered to the following EPA employee:

Jane B. Werholtz  
Office of Regional Counsel  
324 East 11th Street  
Kansas City, Missouri 64106.

Compliance with Applicable Statutes and Regulations

47. All actions undertaken pursuant to this order by Respondent or its representative shall be in accordance with all applicable federal, state, and local laws and regulations, including the regulation commonly referred to as the Vertac Rule, 40 C.F.R., Part 775, Subpart J.

Amendment

48. This order may be amended by the undersigned as required. Such amendment shall be in writing and fully executed. Amendments shall be effective upon receipt by Respondent of a fully executed copy unless otherwise provided.

Penalties for Non-Compliance

49. Respondents are advised that willful violation or subsequent failure or refusal to comply with this Order or any portion thereof may subject Respondents to a civil penalty of not more than \$5,000 for each day in which such violation occurs, or such failure to comply continues. Failure to comply with this Order or any portion thereof without sufficient cause may also subject Respondents to liability for punitive damages in an amount three times the amount of any cost incurred by the government as a result of Respondents' failure to take proper action.

IT IS SO ORDERED

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U.S. Environmental Protection Agency

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Date